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ABSTRACT

The report summarizes the evaluation made of six special occupational education programs (five for the deaf and one for the blind) funded under Vocational Education Amendments of 1968, Part B, Section 4(B) of P.L. 90-576. Section I provides an overview of the observational techniques used to conduct the evaluation. The overview identifies what was observed, which key individuals were interviewed, and which school records were reviewed. Sections II through VII provide an overview of the observations, interviews, and reviews conducted as part of the evaluation. Each site evaluated is reported in a separate section. Sections II through VII conclude with recommendations for transportability to similar programs and with a two-page summary evaluation for each local 4(B) project. Emphasis is placed on locally successful practices which show promise of applicability in similar programs. Section VIII provides statewide recommendations and a short statement of the bases for these recommendations. (Author/SBH)

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AN EVALUATION REPORT ON
SPECIAL 4(B) PROGRAMS
FOR THE DEAF AND BLIND

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INTRODUCTION

This report summarizes the evaluation made of six special programs for the handicapped funded under the Vocational Education Amendments of 1968, Part B, Section 4(B) of PL 90-576. Five of these programs are for the deaf; one is for the blind.

This report is presented in eight sections.

Section I provides an overview of the observational techniques used to conduct this evaluation. This overview identifies what was observed, which key individuals were interviewed, and which school records were reviewed. This information can be used by evaluators wishing to evaluate similar programs.

Sections II through VII provide an overview of the observations, interviews, and reviews conducted as part of the evaluation. Each site evaluated is reported in a separate section. This information can be used by evaluators wishing to summarize essential program data, by program administrators wishing to profit from third party observations, and by program funding agencies wishing to base resource allocations on evidence of program effectiveness.

Sections II through VII conclude with RECOMMENDATIONS FOR TRANSPORTABILITY TO SIMILAR PROGRAMS and with a two page SUMMARY EVALUATION for each local 4(B) project. Emphasis is placed on locally successful practices which show promise of applicability in similar programs. This information can be used by evaluators who wish to go beyond the basic essentials to suggest growth possibilities, by program administrators who wish to replicate successful low cost program components, and by program funding agencies who wish to provide formative evaluation for existing programs.

Section VIII provides statewide recommendations and a short statement of the bases for these recommendations.

This evaluation was planned, conducted, and summarized by Dr. Howard P. Alvir, an Associate in Research with the New York State Education Department.

SECTION I

THE OBSERVATIONAL TECHNIQUES USED TO GATHER INFORMATION FOR EVALUATION

Special 4(B) occupational education programs for the deaf exist at the following locations:

Buffalo Public Schools
Foreman Area Education Center
Nassau BOCES
Oneida #1 BOCES
Southern Westchester BOCES

A special 4(B) occupational education program for the blind exists at Genesee-Wyoming BOCES.

All students in 4(B) programs attend residential schools for the handicapped with the exception of Nassau County where deaf students are sent to the BOCES program from a special day school.

Each of the six 4(B) sites was visited. During these visitations, observations were made, interviews were conducted, and records were reviewed. Each of these three data-gathering activities is described below. Following these descriptions, a summary is given of the observer-interviewer-reviewer guidelines which were observed to insure objectivity. The local program coordinator was present during all observations, interviews, and reviews.

OBSERVATIONS

The evaluator observed the following activities and behaviors:

1. Students in classrooms receiving theory. Deaf students were observed while being instructed alongside hearing* students.
2. Students in school acquiring hands on job skills. Again, deaf students were observed alongside hearing peers.
3. Interaction between deaf and hearing students. This was done during class time and breaks, both before and after school.
4. Normal and special safety procedures used.
5. Deaf students at the schools for the deaf receiving academic instruction and tutoring based upon reading and math assignments from occupational teachers.
6. Program coordinators interacting with occupational teachers at the BOCES and academic teachers at the home school.

*Standard department terminology

INTERVIEWS

The evaluator interviewed the following:

1. Occupational administrators
2. Program coordinator
3. Occupational counselors
4. Placement personnel
5. Job developers (when on the staff)
6. Deaf students
7. Hearing peers of deaf students
8. Representatives from school for the deaf

The questions used during these interviews are contained in the appendixes.

REVIEWS

The evaluator reviewed the following school data:

1. Occupational grades
2. Employment records
3. Attendance records
4. Discipline
5. Plans for next year
6. Follow-up data; for example, dropouts, job placements, post-secondary occupational training, academic degrees, sheltered workshops, current jobs, and unemployment.

OBSERVER-INTERVIEWER-REVIEWER GUIDELINES

The following guidelines were used during observations, interviews, and reviews to insure objectivity:

1. The purpose of the visit was to collect data in a systematic format.
2. No conclusions or judgmental comments were to be made or expressed during the data gathering phase of the evaluation.
3. Notes of the evaluator were to be open to inspection by the program coordinator.
4. During observations, interviews, and reviews, no written notes were to be made by the evaluator.
5. To insure accuracy and objectivity, notes were to be written in debriefing sessions with the program coordinator. Each debriefing was immediately after the observation, interview, or review, or within 15 minutes thereafter.

SECTION II

BUFFALO PUBLIC SCHOOLS

The evaluator visited the 4(B) program for the deaf in the Buffalo Public Schools on April 5 and 6, 1976.

OVERVIEW OF THE OBSERVATIONS

DATA

Each of the programs listed below was observed.

COURSE TITLE	NUMBER OF DEAF STUDENTS OBSERVED IN PROGRAM
Photography	6
Printing	4
Cosmetology	3
Advertising Art	2
Horticulture	2
Welding	2
Auto Mechanics	2
Machine Shop	1
Food Preparation	1
TOTAL	<u>23</u>

EVIDENCE OF LEARNINGS AND PLACEMENTS

Deaf students were observed actively participating alongside hearing peers in classroom presentations in which teachers used captioned visual aids especially designed for deaf students. During hands-on shop and lab work, deaf students were observed performing up to the same standards demanded of hearing students.

Job-related production standards were in evidence. For example, sample projects produced by deaf students were similar to products connected with jobs available locally and listed in the want ads. The print shop appeared to be run like a business where design, preparation, layout, and press work were coordinated in cost-conscious production.

Deaf students participating in work-related processes seemed ready for a variety of entry level jobs in printing and graphic arts occupations. Several of the occupational teachers reported experience working alongside successful deaf workers. These instructors talked of what deaf workers could do on the job and were specific in citing jobs for which deaf printers could be hired in the Buffalo area.

OBSERVABLE NEEDS OF STUDENTS: TRAINING AND JOB PLACEMENT

Given access to equipment similar to that used on the job, deaf students were observed functioning without any apparent difficulty. For example, after a step-by-step demonstration of how to use modern electronic typesetting machines, deaf students were able to produce desired end products to the standards demanded by the teacher.

In addition to working with machinery, deaf students were observed cooperating on production tasks with hearing peers. In such situations, the rate of production seemed noticeably slower than that of comparable teams composed only of hearing students. However, deaf students were observed communicating with and working with hearing peers in apparently productive relationships that seemed to simulate on the job conditions.

From these observations, the following needs of deaf students emerge:
need:

1. The opportunity to learn how to work with equipment, tools, and processes used in business and industry today;
2. The chance to develop a productive working relationship with hearing peers in a learning situation that simulates actual production requirements;
3. Extra training time to compensate for the inability to hear.

The program in the Buffalo Public Schools appeared to be responding to these observable needs of deaf students to a high degree.

OBSERVABLE NEEDS OF THE PROGRAM: PHYSICAL FACILITIES AND STAFF

The Buffalo Public Schools have made certain accommodations to enable deaf students to perform properly and safely in school and on the job. For example, students were observed receiving individual instruction in recognizing and responding to danger signals discernible in motion, vibrations, heat, and odor.

When exposed to interpretation of technical theory through sign language and finger spelling, typical deaf students seemed to have attention spans of approximately 15 minutes or less. These students reported fatigue resulting from following lengthy technical explanations letter-by-letter for each word in finger spelling.

To resolve this difficulty, teachers were observed using overhead projectors, transparencies, wall charts, and gestures to communicate with deaf students. Teachers who had worked alongside deaf workers in industry were observed using simple signs and gestures for directions and explanations related to job tasks. These methods appeared to be effective adaptations to the needs of deaf students, some of whom had multiple handicaps.

From these observations, the following program needs of deaf students emerge:

1. Special teacher help in identifying danger signals through visual, tactile, thermal, and olfactory clues in cases wherein hearing peers would use sound or noise to recognize a safety danger;
2. Captioned visual aids rather than tedious letter-by-letter finger spelling for technical terms, concepts, and processes;

3. Teachers who can use simple signs and gestures to communicate key technical terms, directions, and explanations frequently used in occupations.

The Buffalo Public Schools appeared to be responding to these observable needs of deaf students to a very high degree.

OVERVIEW OF INTERVIEWS

OCCUPATIONAL PROGRAMS: Deaf students were permitted in all occupational programs offered and were subject to the same selection prerequisites as hearing peers in the Buffalo Public Schools. Deaf students are currently enrolled in 9 programs. Since 1974, deaf students have received training in 12 program areas.

COURSE SELECTION: Procedures were reported that made sure each occupational choice was based upon student interest, up-to-date information, personal and academic counseling, on-site visits, test results, hands-on experience with basic tools and student choice. This selection process was supervised at the school for the deaf by the occupational principal, a former director of a BOCES area occupational center.

STUDENT GRADES: Teachers reported that, based upon the same marking standards, the grades received by deaf students were comparable to those of hearing peers.

STUDENT PLANS FOR NEXT YEAR: All 4 sophomores plan to return to the occupational program. Of the 10 juniors, 7 plan to return to the occupational program and 3 plan to seek jobs. Of the 9 seniors, 1 plans to return to the occupational program, 3 plan to follow post-secondary occupational training or college, 3 plan to seek jobs, 1 plans to enter a supervised work experience program, and 1 plans to return to the school of the deaf for additional schooling. Of the 34 deaf students served by the Buffalo Public Schools since 1974, 1 is currently unemployed according to a recent survey conducted the program coordinator.

PROBLEMS: Deaf students and their occupational teachers were unanimous in citing communications as the major problem in acquiring job theory, complex manual skills, and career awareness. The precise difficulty specified was the initial communication of new data, techniques, or explanations to deaf students. For example, teachers reported that hearing students needed merely to be told to turn off the light in the dark room. Some deaf students apparently misunderstood the first time this direction was given and left on the dim light which was enough to spoil a batch of film being developed.

SOLUTIONS: The program coordinator was observed acting as an interpreter on a regularly scheduled basis during the introduction of new theory and procedures. The coordinator reported that this solution was not entirely adequate. The distance between McKinley High School and Potter Road Center was reported to present a problem when interpretation was needed simultaneously at both sites. Teachers reported having been trained through in-service programs to use sign language, finger spelling, gestures, and captioned visual aids with deaf students in the classroom. This solution also was reported by teachers as not being completely satisfactory. Several teachers expressed an interest in working with other occupational teachers of the deaf in an attempt to come up with a common core of signs and gestures that could be used for quick and simple communication of frequently repeated technical explanations and directions common to one or more trade areas. Teachers reported that this approach seemed to offer some promise of success in resolving the communications problem.

SUPPORT SERVICES: The coordinator was seen providing interpreting, language assistance, and counseling for deaf students. The coordinator reported arranging note taking in class for deaf students. Both teachers and deaf students reported the success of these support services which had been available on a regularly scheduled basis. Deaf students interviewed cited specific job openings and opportunities available for post-secondary training in the Buffalo and Rochester area. Deaf seniors reported that the coordinator and interested teachers made significant contributions to developing greater self-confidence as far as employability was concerned.

ATTENDANCE: Deaf students and occupational teachers reported no unusual attendance problems either in absences or in making up missed work.

RELATIONS WITH HEARING PEERS: Except for the obvious fact that signs, gestures, finger spelling, and notes replaced hearing, social and occupational interactions between deaf students and hearing peers were positive and normal. Both hearing and deaf students reported that working together on common projects had been a good way to get acquainted. Hearing students volunteered the opinion that the experience of having worked with deaf students in school lessened any previous hesitancy to teaming up with deaf co-workers on the job.

SAFETY: Teachers reported that the safety record of deaf students was equal to or better than that of hearing peers.

STUDENT AND STAFF OVERALL REACTIONS TO OCCUPATIONAL PROGRAM: Deaf students expressed satisfaction with the opportunities provided by the occupational program. Several deaf students volunteered the opinion that their newly acquired job skills were comparable to those of hearing peers. Teachers agreed with this opinion and added that deaf graduates of the graphic arts program were able to get a variety of entry level jobs last year because of diversified experience gained during training. In this regard, deaf students did not mention increase job choice as often as the higher level of interest resulting from learning different skills on a range of related equipment.

RECOMMENDATIONS: The program coordinator and the program curriculum developer suggested research in each occupational course toward the identification of approximately 25 signs for technical terms, skills, directions, and explanations frequently used in the trade. A short publication containing these signs and gestures could be valuable in theory presentations, hands-on sessions, and career exploration. Occupational teachers interviewed reacted positively to this suggestion. Deaf students agreed that such a collection of technical signs could help them master needed concepts and skills. Deaf students also added that similar attempts on the part of teachers to communicate non-verbally have been gratefully received.

OVERVIEW OF RECORDS REVIEWED

After the observations and interviews summarized above, the school report card, attendance, discipline, scheduling, employment and follow-up records were reviewed.

The results of this review indicated that the comments recorded in interviews agreed with official school records.

RECOMMENDATIONS FOR TRANSPORTABILITY TO SIMILAR PROGRAMS FOR DEAF STUDENTS

Of special note in the Buffalo Public Schools were the following:

ADMINISTRATIVE PROCEDURES MANUAL FOR PRODUCTION-ORIENTED
OCCUPATIONAL COURSES

COLLECTION OF VISUAL AIDS WITH SPECIAL CAPTIONING IN SIMPLIFIED
VOCABULARY FOR DEAF STUDENTS

MANUAL OF INTERDISCIPLINARY PROGRAMS IN THE GRAPHIC ARTS LEADING
TO CAREERS FOR THE DEAF

In the opinion of the evaluator, these approaches to teaching deaf students are suitable for application elsewhere. Investing a modest budget in the task of developing transportability manuals for use elsewhere on how to set up production-oriented occupational courses and on how to develop captioned visual aids could provide valuable service to existing and proposed programs for the deaf. The publication of a manual illustrating simple signs for technical occupational concepts and skills could help resolve some of the communications problems encountered in teaching the deaf.

The following items should be considered in reviewing the program for the deaf in the Buffalo Public Schools:

ENROLLMENT: 23 deaf students are currently being served.

EXPERIENCE: Since 1974, 34 deaf students have been served.

PLACEMENT: Out of the 34 deaf students served, only 1 student, that is 3%, are currently unemployed.

FOLLOW-UP: Of the 34 deaf students served, 23 are presently in the occupational programs in the Buffalo Public Schools.

SERVICE: Approximately 14% of the sophomores, 44% of the juniors, and 56% of the seniors from the school for the deaf attend occupational programs in the Buffalo Public Schools.

PROGRAM AREAS: Deaf students have been trained in the following occupational areas since 1974:

Air-Conditioning	Horticulture
Advertising Art	Machine Shop
Auto Mechanics	Mechanical Drawing
Cosmetology	Photography
Food Preparation	Printing
Graphic Arts	Welding

EXEMPLARY TRANSPORTABLE COMPONENTS: The following components of the program for the deaf in the Buffalo Public Schools are suitable for application elsewhere:

ADMINISTRATIVE PROCEDURES MANUAL FOR
PRODUCTION-ORIENTED COURSES

MANUAL OF BASIC SIGN LANGUAGE FOR TECHNICAL
VOCABULARY USED IN SELECTED TRADES

COLLECTION OF VISUAL AIDS WITH SPECIAL CAPTIONING
IN SIMPLIFIED VOCABULARY FOR DEAF STUDENTS

MANUAL OF INTERDISCIPLINARY PROGRAMS IN THE
GRAPHIC ARTS LEADING TO CAREERS FOR THE DEAF

SUPPORT SERVICES: The following support services are available to deaf students:

Interpreter
Language assistance
Note-taking
Informal Counseling via sign language
Gradual introduction into training conditions
that simulate on-the-job production

ON-THE-JOB Deaf students receive the same placement and
FOLLOW-UP: follow-up services available to hearing students.

HANDICAPPING Of the 23 deaf students served this year, 21 are
CONDITIONS: totally deaf.

Of the 23 deaf students served this year, 4 have
multiple handicaps.

The median reading level of these 23 deaf students
is 4th grade as reported by the school for the
deaf before entry into the occupational programs.

TOTAL COST: \$64,443 approved GRAND TOTAL

COST PER STUDENT	\$2,801 based upon 23 students in attendance
	\$2,578 based upon 25 students budgeted

INSTRUCTION PROFESSIONAL SALARIES:	\$16,000 salary 180 travel <u>4,620</u> benefits \$20,800
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INSTRUCTION CONTRACT SERVICES:	\$18,360 for 25 students
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COST PER STUDENT	\$735
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PUPIL TRANSPORTATION CONTRACT SERVICES:	\$18,500 for 25 students
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COST PER STUDENT	\$740
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SECTION III

FOREMAN AREA EDUCATION CENTER

The evaluator visited the 4(F) program for the deaf at the Foreman Center on April 8 and 9, 1976.

OVERVIEW OF THE OBSERVATIONS

DATA

Each of the programs listed below was observed.

COURSE TITLE	NUMBER OF DEAF STUDENTS OBSERVED IN PROGRAM
Keypunching	10
Auto Body	6
Restaurant	3
Data Processing	2
TOTAL	21

EVIDENCE OBSERVED OF STUDENT LEARNINGS AND PLACEMENT ACTIVITIES

Students were observed actively participating in both classroom theory and hands-on applications. Deaf students were expected to perform up to the same standards demanded of hearing students even if this took more time. In several instances, deaf students were observed explaining difficult subject matter and procedures to hearing students who needed coaching. Job related standards were evident. For example, one deaf student ran the data processing attendance procedures for the Foreman Center. Also, deaf students in the restaurant course produced as in a restaurant. Deaf students were observed receiving job placement counseling via an interpreter provided by non-VEA funds.

OBSERVABLE NEEDS OF STUDENTS: TRAINING AND JOB PLACEMENT

With an interpreter, the average deaf student seemed to participate actively in classroom activities which presented new information or theory orally. The deaf students appeared able to work independently after adequate explanations.

During lectures given without an interpreter, the average deaf student appeared to miss about half of what was said in class. Both teachers and students verified this impression during interviews. Teachers volunteered examples of how missing a few very simple explanations caused problems for deaf students. A recent study conducted at Foreman Center supported the idea that deaf students left entirely on their own miss about half of what hearing students acquire in occupational education.

The instructional aide provided by non-VEA funds is herself deaf. She appeared to be an excellent lip reader and role model, an excellent assistant to teachers and deaf students. She was seen providing interpretation, tutoring, and in-depth explanations to theory work on a scheduled basis. These services were designed to prevent problems that could otherwise arise from poor communication and misunderstanding. The aide was observed examining written lesson plans with teachers before attempting to interpret to deaf students during class or attempting to tutor deaf students after class.

Deaf students were shown things that hearing students had been told. This seemed to result in immediate student satisfaction. During the observation of an informal in-service meeting, the coordinator gave concrete examples to teachers of how to convey ideas or job skills in a demonstration instead of in an explanation. Teachers were seen exchanging successful techniques that have worked with deaf students.

Deaf students were observed working with hearing students on a variety of job related tasks. Deaf students who did not have intelligible speech were observed asking questions and communicating through understandable gestures. Teachers volunteered the opinion that if deaf and hearing students worked side-by-side in school, the path to teamwork on the job was prepared. Teachers also volunteered the opinion that the greatest obstacle to success in working with the deaf for teachers, employers, and fellow workers was lack of experience. Teachers at Foreman Center seemed to provide this experience in an organized program. In many shops, it was difficult to identify deaf students without careful observation.

In certain noisy shops, deaf students seemed obviously able to ignore noise that bothered their hearing peers. Teachers volunteered the opinion that on certain jobs, this ability to concentrate would be a definite asset.

From these observations, the following needs of deaf students emerge:

1. Interpreters or more time or special teacher tutoring to master theory and explanations presented through lectures;
2. Demonstrations rather than explanations to acquire job skills essential to employment;
3. Role models as well as theory and job skills to get and keep a job where work habits are necessary for success;
4. Practice in communicating with hearing peers and adults who do not know sign language or fingerspelling.

The program at Foreman Center appeared to be responding to these observable needs of deaf students to a very high degree.

OBSERVABLE NEEDS OF THE PROGRAM: PHYSICAL FACILITIES AND STAFF

The Foreman Center has made certain accommodations to enable deaf students to perform properly and safely in school and on the job. For example, the center provided special equipment such as warning lights instead of bells, changes in physical layout that permitted unobstructed vision to replace danger sounds, and special screening criteria for teachers of deaf students.

The coordinator has arranged for these and other necessary accommodations. The coordinator used the instructional aide appropriately and still remained in touch with the problems of deaf students and their teachers by acting herself as an interpreter on a scheduled basis. The coordinator had a schedule of regular checkpoints designed to prevent crises foreseeable with deaf students. The purpose of this was to create a learning environment in which deaf students, hearing peers, teachers, and coordinator interact positively and humanely in the pursuit of occupational education.

One teacher who had objected strongly to having deaf students in the theory-intensive computer programming course was observed as using the blackboard and overhead transparencies to explain flowcharting to deaf students. The deaf students seemed well prepared in keypunching and data processing and seemed able to apply the new computer programming theory. This teacher was outspoken in praise of the success of deaf students while showing the evaluator around his classroom.

From these observations, the following program needs of deaf students emerge:

1. Accommodations for the deaf such as warning lights and changes in physical layout to insure safety;
2. Staff willing to use blackboards, transparencies, demonstrations, and visual aids to make explanations and directions more visual and less oral.

The program at Foreman Center appeared to be responding to these observable needs of deaf students to a high degree.

OVERVIEW OF INTERVIEWS

OCCUPATIONAL PROGRAMS: Deaf students were permitted access to all occupational programs offered. Deaf students are currently enrolled in four programs. Since the program started, deaf students have been trained in 15 program areas.

COURSE SELECTION: The program coordinator reported procedures designed to insure that each occupational choice was based upon information, counseling, on-site visits, and hands-on experience. Deaf students reported that career counseling has started several years before the decision to come to the occupational center was made. Deaf students reported that courses had been freely chosen.

STUDENT GRADES: Teachers reported that, based upon the same marking grades received by deaf students were comparable to those of hearing peers.

PLANS FOR NEXT YEAR: In general, deaf juniors plan to return to the occupational program next year. Deaf seniors plan either to seek employment or to begin post-secondary training. An equal number of deaf seniors plan to go to four year colleges and to postgraduate technical training. Since 1968, 71 deaf students have been served by this program, only 2 of which are currently unemployed.

PROBLEMS: The most frequently cited problem of teachers and deaf students was communications. Local surveys taken of deaf students and occupational teachers reported that deaf students -- without the help of an interpreter -- learn about half of the theory and job entry skills needed in their occupation. Teachers reported that they must give proportionately more time to deaf students to meet performance standards required on the job.

SOLUTIONS: Interpreters have been provided out of non-VEA funds. Teachers reported being trained in basic sign language and in finger spelling. Some hearing students reported becoming interested in sign language to communicate with deaf peers. Deaf students and occupational teachers reported that the local coordinator has achieved extraordinary success in encouraging and achieving cooperation between teachers of occupational education and teachers of academic subjects for the deaf.

SUPPORT SERVICES: Deaf students reported that the coordinator was available for counseling, tutoring, interpretation, and other services. The coordinator explained special screening criteria developed to select the right teacher for each deaf student. For example, if two teachers were available for auto body, the deaf student was assigned to the teacher who stressed hands-on skills over theoretical considerations. Students reported being made aware of job opportunities. Thus, the extraordinary placement record in keypunching and data processing has attracted large numbers of deaf students. All senior deaf students were interviewed. All could cite specific job opportunities, working conditions, and advancement opportunities.

ATTENDANCE: Deaf students had no unusual attendance problems either in absences or in making up missed work.

RELATIONS WITH HEARING PEERS: Except for the obvious fact that deaf students could not hear hearing peers, personal and social interactions were reported as positive and normal. Representatives of the school, for the deaf expressed approval of the fact that deaf students in the occupational program made hearing friends both in school and out of school. This was felt to be a strong contribution to future employability. The point was made that, if the deaf worker can't communicate in some way with the immediate superior on the job, no amount of manual skill will keep the individual employed for very long.

SAFETY: The safety record of deaf students has been equal to or better than that of hearing peers.

STUDENT AND STAFF OVERALL REACTIONS TO OCCUPATIONAL PROGRAM: Deaf students expressed interest in developing job skills and in experiencing the feeling of success that comes from a good occupation. The possibility of earning money in a skilled trade was prized over taking jobs which provide a small income and little challenge. Academic teachers at the school for the deaf reported that each year more and more deaf students chose the option of occupational training. In the current school year, more than 50% of the juniors and seniors at the school for the deaf attend the occupational program. It became obvious in talking to deaf juniors and seniors that the occupational program was one of high status in the eyes of the school for the deaf. The program coordinator reported that at Foreman Center the support services included many items funded through non-VEA dollars earmarked for the 4(B) program.

QUESTIONS, LOCAL CONCERNS, AND RECOMMENDATIONS: The program coordinator wanted to receive from the VEA funding agency a definite idea of how much room there was for innovative program alternatives under the present statewide guidelines. Specifically, she was interested in adding an instructional aide to the program and in experimenting with promising alternatives in delivering occupational education to deaf students. The coordinator also recommended that the VEA budget be expanded to include funds for visiting other 4(B) sites in an exchange of external evaluation feedback. It was felt that mutual visitation would identify successful practices that could be transported at low cost from one site to another. Representatives from the school for the deaf suggested that deaf adults should be employed in the occupational program to provide role models. Students suggested that their greatest need was for an interpreter, not only in class, but in employment interviews and during the first few weeks on the job.

OVERVIEW OF RECORDS REVIEWED

After the observations and interviews summarized above, the school report card, attendance, discipline, scheduling, employment, and follow-up records were reviewed.

The results of this review indicated that the comments recorded in interviews agreed with the official school records.

RECOMMENDATIONS FOR TRANSPORTABILITY TO SIMILAR PROGRAMS

Of special note at Foreman Center were the following:

LIST OF OBJECTIVES FOR TEACHER IN-SERVICE CONFERENCE ON TEACHING
DEAF STUDENTS AND NEEDS REPORT

COMPENSATORY SHOP LAYOUTS

JOB DESCRIPTION OF THE COORDINATOR FOR THE DEAF

JOB DESCRIPTION OF THE INSTRUCTIONAL AIDE FOR THE DEAF

In the opinion of the evaluator, these documents are suitable for application elsewhere. Investing a modest budget in the task of developing transportability manuals based upon these documents could provide valuable services to existing programs and to proposed programs. For example, specific objectives were spelled out for occupational teachers who need to learn about deaf education and for deaf education teachers who need to learn about occupational education. In addition, the job description could serve as a guide for programs where the coordinator was not exactly certain about how best to use available time.

The following items should be considered in reviewing the program for the deaf at Foreman Center:

ENROLLMENT: 21 deaf students are currently being served.

EXPERIENCE: Since 1968, 71 deaf students have been served.

PLACEMENT: Out of the 71 deaf students served, only 2, that is, 3%, are currently unemployed.

FOLLOW-UP: The following figures summarize the current status of these 71 students and graduates:

Course related employment	11	16%
Non-course related employment	22	31
College	9	13
Post-graduate technical training	2	3
Housewives	3	4
Deceased	1	1
Unemployed	2	3
Presently in high school	<u>21</u>	<u>29</u>
	71	100%

SERVICE: Approximately half of the juniors and seniors at Rochester School for the Deaf attend the occupational program at Foreman Center.

FINANCIAL SUPPORT: Non-VEA funds are used to pay the salary of a deaf instructional aide.

PROGRAM AREAS: Deaf students have been trained in the following occupational areas since 1968:

Auto Body	Electricity
Auto Service	Food Service
Baking	Restaurant
Carpentry	Short Order
Computer Programming	Keypunch
Cosmetology	Machine Shop
Data Processing	Masonry
	Photography

EXEMPLARY

TRANSPORTABLE

COMPONENTS: The following components of the program for the deaf at Foreman Center are suitable for application elsewhere:

LIST OF OBJECTIVES FOR TEACHER IN-SERVICE
CONFERENCE ON TEACHING DEAF STUDENTS

NEEDS REPORT ON OCCUPATIONAL PROGRAM FOR DEAF STUDENTS

COMPENSATORY SHOP LAYOUTS

JOB DESCRIPTION OF THE COORDINATOR FOR THE DEAF

JOB DESCRIPTION OF THE INSTRUCTIONAL AIDE
FOR THE DEAF

SUPPORT

SERVICES: The following services are available to deaf students:

Interpreter
Demonstrations instead of explanations
Role models of fully employed deaf adults
Practice in job-related communication with
hearing peers and adults
Visual aids and hands-on experiences
instead of strictly oral explanations
and directions

**ON-THE-JOB
FOLLOW-UP:**

Graduates placed on jobs are regularly visited
and counseled by the program coordinator and deaf
interpreter.

**HANDICAPPING
CONDITIONS:**

Of the 21 deaf students served, 20 are totally
deaf and 1 is hearing impaired.

Of the 21 deaf students served, 7 have
multiple handicaps.

The median reading level of these deaf students
is 4th grade as reported by the school for the
deaf before entry into the occupational programs.

TOTAL COST: \$46,939 approved GRAND TOTAL

23 students in attendance
25 students budgeted

COST PER STUDENT

\$2,235 based upon 21 students
in attendance
\$1,805 based upon 26 students
budgeted

**INSTRUCTION
PROFESSIONAL
SALARIES:**

\$16,000 salary
4,300 employee benefits
\$20,300

**INSTRUCTION
CONTRACT
SERVICES:**

\$21,000 for 26 students

COST PER STUDENT \$808

**PUPIL
TRANSPORTATION
CONTRACT
SERVICES:**

\$3,570 for 26 students

COST PER STUDENT \$137

SECTION IV

NASSAU BOCES

The evaluator visited the 400 program for the deaf at Nassau BOCES on March 29, 30, and 31, 1976.

OVERVIEW OF THE OBSERVATIONS

DATA

Each of the programs listed below was observed.

COURSE TITLE	NUMBER OF DEAF STUDENTS OBSERVED IN PROGRAM
Office Occupations	7
Multi-Occupational	6
Baking	2
Auto Body	2
Offset Printing	2
Commercial Photography	2
Medical Lab Assistant	1
Major Appliances	1
Floral Design	1
Fashion Clothing	1
Human Services	1
	26

EVIDENCE OF LEARNINGS AND PLACEMENTS

Deaf students were observed actively participating alongside hearing peers in classrooms, shops, laboratories, work areas, computer centers, office complexes, greenhouses, stables, repair shops, and learning centers. In all of these learning sites, deaf students seemed to be performing up to the same occupational education standards demanded of hearing students.

Deaf students were observed during the school day, during the lunch hour, and after school participating in a wide variety of exploratory activities. Occupational teachers and deaf students at Nassau BOCES seemed to be actively participating in a variety of exploratory activities designed to foster informed career choice based upon hands-on experience.

Four different occupational sites were visited. In each of these training areas, at least one individual was introduced who was responsible for job placement. All of these counselors were able to discuss individual deaf students and their employability potential. In addition, a special job developer reported on his job of working directly with local employers to foster employment of deaf workers with job skills acquired in the program at Nassau BOCES.

OBSERVABLE NEEDS OF STUDENTS: TRAINING AND JOB PLACEMENT

In the middle of March, one deaf student was observed during the first day in a new class. The coordinator explained that this student had tried out two occupational courses since September and wanted to explore still another potential job source. The teachers involved seemed used to having students enter and exit courses on short notice. The other students seemed to accept this as normal. The transfer student seemed busy at work after 15 minutes of explanation about what to do. The occupational teacher explained that the course was set up in modules. Students were observed taking module pretests to determine previously acquired skills. These same students were next observed working on modules that corresponded to the achievement documented on the pretest. The teacher explained that, within reasonable limits, students were permitted to work at their own rate of speed. Other teachers reported that there was no stigma or lower grade attached to a deaf or hearing student who took longer than peers to complete a given assignment or module.

While watching students complete modules, it became obvious that each module contained theory, hands-on skills, and job habits. Out of five evaluation sessions observed, only one involved a paper and pencil posttest confined to measuring acquisition of occupational theory and comprehension of reading assignments. One of the hands-on posttests was so informal in appearance that only the stop watch in the hands of the instructor made the testing session look any different from a busy, well run office. The obvious impression was that posttesting of hands-on skill and job habits took place in an atmosphere comparable to working conditions likely to be encountered on the job.

While examining a sample employability profile kept on each deaf student, two things became obvious: (a) the same profile was used with both deaf and hearing students and (b) the modular structure of each occupational course facilitated the identification of job skills acquired by deaf students during a period of time as short as one week.

From these observations, the following needs for deaf students emerge:

1. A variety of hands-on experiences before selecting one occupational course area for in-depth study;
2. The chance to change occupational courses when it becomes obvious that student interest and ability are elsewhere;
3. The opportunity to acquire theory, skills, and job habits at a pace consistent with individual ability;
4. Realistic job counseling and placement based upon marketable job skills acquired and recorded in a permanent employability record.

The program at Nassau BOCES appeared to be responding to these observable needs of deaf students to a very high degree.

OBSERVABLE NEEDS OF STUDENTS: PROGRAM AND CAREER EXPLORATION

Nassau BOCES has made certain accommodations designed to enable deaf students to choose a career after a variety of explanatory experiences. For example, 8th and 9th grade deaf students were observed during midday programs especially designed for deaf students considered capable of entering occupational education programs at a later date. During one of these midday programs, a counselor from the school for the deaf was seen observing her deaf students in an occupational setting.

The teacher of the midday program was observed teaching in such a way that career exploration rather than concentration on specific skills seemed to be obvious objective of the program. Deaf students appeared to be attentive to the occupational teacher and actively engaged in program activities. Teachers were observed using teaching methods that stressed demonstration more than directions and explanations.

From these observations, the following program needs of deaf students emerge:

1. Exposure to the occupational center, its courses, teachers, equipment, procedures, and opportunities;
2. Non-verbal demonstrations that provide experiences with which to select an interesting and appropriate occupational course;
3. Teachers who are interested in helping deaf students select an occupational course freely and wisely after firsthand experience with a variety of job opportunities.

The Nassau BOCES appeared to be responding to these observable needs of deaf students to a high degree.

OVERVIEW OF INTERVIEWS

OCCUPATIONAL PROGRAMS: Deaf students and occupational teachers reported that deaf students have access to all occupational programs at Nassau BOCES. Deaf students are currently enrolled in 11 programs. Since 1970, deaf students have received training in 21 program areas.

COURSE SELECTION: The program coordinator and representatives from the school for the deaf reported that procedures exist to insure that each occupational course selection is based upon student interest, individual and group counseling, multi-occupational exploration, hands-on experiences, demonstrated ability, and student choice. Deaf students reported ease in changing occupational courses even in the last few months of the school year.

STUDENT GRADES: Teachers reported that, based upon the same marking standards, the grades received by deaf students were comparable to those of hearing peers.

STUDENT PLANS FOR NEXT YEAR: All the deaf sophomores and juniors plan to return to the occupational program at Nassau BOCES next year. Of the 12 deaf seniors, 7 plan to get jobs, 4 plan to follow post-secondary occupational training or college, and 1 plans to return to the BOCES next year.

PROBLEMS: Deaf students and their occupational teachers cited communications difficulties as their major problem. For example, individual deaf students volunteered information on how this problem affected job theory, complex manual skills, and career awareness more specifically, deaf students cited cases wherein explanations, directions, or job opening were presented orally and misunderstood.

SOLUTIONS: Occupational teachers and deaf students reported that the coordinator was available for interpretation when necessary. However, since deaf students are served in four geographically distant occupational centers, the coordinator reported that he was not always available where and when needed. Teachers and students alike expressed the desire to have an interpreting instructional aide available on a regularly scheduled basis.

SUPPORT SERVICES: Deaf students reported having received support services from the following individuals: teacher liaison, counselor for special needs, job developer, work experience supervisor, special needs guidance technician, and remedial aides. Deaf students also reported having received job placement assistance through personal study in a career exploration center and through individual evaluations using employability profiles.

ATTENDANCE: Deaf students and occupational teachers reported no unusual attendance problems either in absences or in making up missed work.

RELATIONS WITH HEARING PEERS: Both deaf and hearing students reported that social and occupational interactions were positive and normal. Occupational teachers volunteered the opinion that having only one or two deaf students in a classroom of hearing students forced the deaf student(s) to learn how to communicate both socially and occupationally with hearing peers in a variety of ways.

SAFETY: Teachers reported that the safety record of deaf students was equal or better than that of hearing peers.

STUDENT AND SENDING SCHOOL STAFF OVERALL REACTIONS TO OCCUPATIONAL PROGRAM: Deaf students reported satisfaction with the occupational program. Specific things cited by deaf students included multi-occupational exploration, the opportunity to change occupational courses when necessary, the midday program before coming to BOCES, and available support services. Representatives from the school for the deaf reported that seniors attending occupational courses at Nassau BOCES were less inclined to "senioritis" than seniors not attending BOCES.

RECOMMENDATIONS: Occupational teachers, deaf students, and the program coordinator suggested that interpreting instructional aides be added to the program at Nassau BOCES. When asked to indicate the job description of this aide, the coordinator suggested that this person could travel from center to center to provide the following services for deaf students on a regularly scheduled basis: liaison with teachers, interpretation of technical course content, remedial help as required, and occupational information.

OVERVIEW OF RECORDS REVIEWED

After the observations and interviews summarized above, the school report card, attendance, discipline, scheduling, employment, and follow-up records were reviewed.

The results of this review indicated that comments recorded in interviews agreed with official school records.

RECOMMENDATIONS FOR TRANSPORTABILITY TO SIMILAR PROGRAMS

Of special note at Nassau BOCES were the following:

MANUAL FOR MULTI-OCCUPATIONAL EXPLORATION (MOX) starting in 10th grade

GUIDELINES FOR MIDDAY PROGRAM: pre-MOX for 9th grade and younger

STATISTICAL REPORT ON CAREER EXPLORATION LEADING TO INFORMED AND EXPERIENCE-BASED CAREER CHOICE

ORGANIZATIONAL CHART FOR IN-SERVICE TRAINING PROGRAM for teachers and support services staff

LIST OF AN EXTENSIVE ARRAY OF SUPPORT SERVICES made available to four different occupational sites where deaf students are trained

JOB DESCRIPTION OF JOB DEVELOPER who visits potential job sites, orients the employer, and integrates the deaf worker

ADMINISTRATIVE PROCEDURES MANUAL FOR ORGANIZING COURSES INTO SEQUENTIAL MODULES

In the opinion of the evaluator, the above components of the program for the deaf at Nassau BOCES are suitable for application elsewhere. Allocating a modest budget for the development of transportability manuals for one or more of the above program components could provide valuable service to existing programs and to developers of proposed programs. Allocating a travel budget to program coordinators to visit Nassau BOCES during the development of these transportability manuals could increase the feedback necessary to insure that these manuals are practical, realistic, and operational in a variety of settings different from Nassau BOCES. The Nassau County operation was the largest and most extensive service program observed.

EVALUATION SUMMARYNASSAU BOCES

The following items should be considered in reviewing the program for the deaf at Nassau BOCES:

ENROLLMENT: 26 deaf students are currently being served.

EXPERIENCE: Since 1970, 66 deaf students have been served.

PLACEMENT: Out of the 66 deaf students served, 2, that is, 3%, are currently unemployed.

FOLLOW-UP: The following figures summarize the current status of these 66 students and graduates:

Employed or in post-secondary training including college	38	58%
Unemployed	2	3
Presently in high school	26	39
	66	100%

SERVICE: Approximately 40% of the sophomores, 45% of the juniors, and 40% of the seniors from Mill Neck School for the Deaf attend the occupational program at Nassau BOCES.

FINANCIAL SUPPORT: Many of the support services are paid for from non-VEA funds at the Nassau BOCES. At the school for the deaf, a career exploration center has been set up with school funds.

PROGRAM AREAS: Deaf students have been trained in the following occupational areas since 1970:

Architectural Drafting	Machine Trades
Auto Body	Major Appliance Repair
Auto Mechanics	Masonry
Baking	Medical Lab Assisting
Carpentry	Office Practices
Child Care	Offset Printing
Commercial Art	Ornamental Horticulture
Commercial Photography	Refrigeration & Air
Data Processing	Conditioning
Fashion Design	Trade Electricity
Floral Design	Welding

**EXEMPLARY
TRANSPORTABLE
COMPONENTS:**

The following components of the program for the deaf at Nassau BOCES are suitable for application elsewhere:

MANUAL FOR MULTI-OCCUPATIONAL EXPLORATION (MOX)
starting in 10th grade

GUIDELINES FOR MIDDAY PROGRAM: pre-MOX for
9th grad or younger

STATISTICAL REPORT ON CAREER EXPLORATION LEADING
TO INFORM AND EXPERIENCE-BASED CAREER CHOICE

ORGANIZATIONAL CHART FOR IN-SERVICE TRAINING PROGRAM
for teachers and support services staff

LIST OF AN EXTENSIVE ARRAY OF SUPPORT SERVICES made
available to four different occupational sites
where deaf students are trained

JOB DESCRIPTION OF JOB DEVELOPER who visits
potential job sites, orients the employer, and
integrates the deaf worker

ADMINISTRATIVE PROCEDURES MANUAL FOR ORGANIZING
COURSES INTO SEQUENTIAL MODULES

**SUPPORT
SERVICES:**

The following support services are available to deaf
students:

Teacher liaison for commuting deaf students
Counselor for special needs
Job developer
Work Experience supervisor
Special needs guidance technician
Remediation at the BOCES
Employability profiles used for job placement
Career exploration center at the school
for the deaf

**ON-THE-JOB
FOLLOW-UP**

Graduates placed on jobs are regularly visited and aided
by the job developer.

**HANDICAPPING
CONDITIONS:**

Of the 26 deaf students served, 26 are totally deaf
and none are hearing impaired.

Of the 26 deaf students served, 4 have multiple
handicaps.

The median reading level of these deaf students is
4th grade as reported by the school for the deaf before
entry into the occupational programs.

TOTAL COST: \$79,410 approved GRAND TOTAL

COST PER STUDENT	\$3,054 based upon 26 students in attendance
	\$2,647 based upon 30 students budgeted

INSTRUCTION
PROFESSIONAL

SALARIES:	\$14,500 salary
	<u>4,060</u> employee benefits
	\$18,560

INSTRUCTION
CONTRACT

SERVICES:	\$46,200 from budget
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TUITION PER STUDENT	\$1,841	from BOCES
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PUPIL
TRANSPORTATION
CONTRACT

SERVICES:	\$14,650	for 30 students
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COST PER STUDENT	\$488
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SECTION V

ONEIDA 1 BOCES

The evaluator visited the 4(B) program for the deaf at Oneida 1 BOCES on March 25 and 26, 1976.

OVERVIEW OF THE OBSERVATIONS

DATA

Each of the programs listed below was observed.

COURSE TITLE	NUMBER OF DEAF STUDENTS OBSERVED IN PROGRAM
Office Occupations	6
Auto Body	4
Home and Community Services	4
Electricity	3
Machine Tools	1
Cosmetology	1
Building Construction	1
Carpentry	1
TOTAL	<u>22</u>

EVIDENCE OF LEARNINGS AND PLACEMENTS

Both in occupational classrooms and in shops, deaf students were observed actively participating alongside hearing students. The occupational center seemed to be well organized. For example, half of the building visited was under construction. In the occupied half, both students and occupational teachers seemed too busy to notice any of the obvious construction distractions. Deaf students were reported by occupational teachers to be acquiring job skills comparable to those of hearing peers. For example, 65% of deaf graduates in the class of 1973 found employment in course related jobs in comparison to 51% of hearing graduates who found jobs in course related jobs.

OBSERVABLE NEEDS OF STUDENTS: TRAINING AND JOB PLACEMENT

In a welding classroom visited, visual aids were on permanent display. One visual aid examined was designed to show the results of and remedies for a number of maladjustments. To profit from this self-evaluation aide, the student could match up obvious defects with an appropriate remedy, for example, more oxygen or less oxygen. The teacher reported that deaf students who took the course last year seemed to respond positively to these aids. In fact, last year, a deaf student won the county-wide welding award.

Some occupational teachers were observed using an occasional gesture or finger spelling sign during theory presentation. In general, most teachers reported only a slight familiarity with sign language. Whether or not the teacher reported familiarity with manual communication with the deaf did not seem to interfere with the hands-on performance of deaf students. Deaf students were observed actively participating in hands-on classroom occupational activities with teachers who signed and with teachers who used blackboards.

The program coordinator had been deaf since birth. He seemed to be an excellent lip reader. For example, he was seen while interpreting explanations given by occupational teachers who reported knowing no sign language. He seemed to be a role model for deaf students. For example, teachers reported that he was a living example of success for deaf students.

From these observations, the following needs of deaf students emerge:

1. Visual aids that get their message across clearly and simply;
2. Opportunity to learn how to communicate with hearing teachers and employers who do not understand or use finger spelling;
3. Learning situations in which previously undeveloped job skills can develop;
4. Recognition for occupational achievement acquired alongside hearing peers;
5. Role models that give concrete evidence of successful deaf individuals who are self-supporting and respected.

The program at Oneida 1 BOCES appeared to be responding to these observable needs of deaf students to a high degree.

OBSERVABLE NEEDS OF THE PROGRAM: PHYSICAL FACILITIES AND STAFF

Oneida 1 BOCES has made observable accommodations designed to enable deaf students to perform safely and properly in school and on-the-job. For example, red fire warning lights were observed in each classroom and shop visited. In addition, the new building appeared to have been designed with efficiency and safety as primary considerations. In every shop visited, deaf students seemed to have ample space to work safely and effectively and sufficient unobstructed fields of vision to spot potential hazards.

Some occupational teachers were observed using sign language in the classroom and in the shops. Other occupational teachers, who apparently did not seem to know sign language, were observed using appropriate gestures or hand written signs to communicate. Almost all teachers observed had written lessons plans for group instruction. During individual instruction, occupational teachers were seen using demonstrations rather than explanations to communicate with deaf students. All classrooms and shops visited at Oneida 1 BOCES appeared to be organized for smooth operation. The deaf students observed appeared to be attentive during explanations and to be interested while performing hands-on operations.

From these observations, the following program needs of deaf students emerge:

1. Accommodations for the deaf such as warning lights and appropriate physical layout to ensure safety;
2. Occupational courses that link theory to practical hands-on application and to skills needed on-the-job;
3. Occupational staff willing to communicate with deaf students in a variety of settings;
4. Teachers who plan lessons that use demonstrations as well as explanations both in the classroom and in the shops;
5. Teachers who can run a smooth organization and keep deaf students interested.

The program at Oneida 1 BOCES appeared to be responding to these observable needs of deaf students to a high degree.

OVERVIEW OF INTERVIEWS

OCCUPATIONAL PROGRAMS: Deaf students, occupational teachers, and representatives from the school for the deaf reported that deaf students have access to all occupational programs at Oneida 1 BOCES. Deaf students are currently enrolled in eight programs. Since 1972, deaf students have received training in seventeen program areas.

COURSE SELECTION: The program coordinator, occupational teachers, and representatives from the school for the deaf reported that procedures exist to insure that each deaf student makes a free choice of an occupational course after sufficient testing, counseling, visits to the occupational center, and experience with basic tools. All deaf students interviewed reported that their choice of an occupational course had been respected.

STUDENT GRADES: Teachers reported that, based on the same marking standards, the grades received by deaf students were comparable to those of hearing peers.

PLANS FOR NEXT YEAR: All of the juniors reported plans to return to the occupational program at Oneida 1 BOCES next year. All of the seniors reported plans for next year that included post-secondary occupational training or employment. Two of the seniors, who had multiple handicaps, reported plans to seek help next year from the office of vocational rehabilitation.

PROBLEMS: Deaf students and their occupational teachers reported agreement in identifying communications as the major problem in acquiring job theory and career awareness. Except for complex manual skills, the deaf students interviewed reported no great difficulty during hands-on performance. Several deaf students expressed the desire to have an interpreter in the classroom on a scheduled basis, especially during presentation of occupational theory. Some occupational teachers reported that they must give proportionately more time to deaf students during individual explanations in laboratories and shops.

SOLUTIONS: Occupational teachers expressed satisfaction with the services with the program coordinator who provided both interpretation and counseling for deaf students as required. Some occupational teachers and most deaf students reported that it would be helpful to have an interpreting instructional aide available for necessary help with technical reading assignments.

SUPPORT SERVICES: Deaf students reported having received the following support services from the program coordinator: interpretation, counseling, remedial help, reading assistance, technical vocabulary help, and career exploration. Deaf students also reported having received job placement assistance through the office of vocational rehabilitation.

ATTENDANCE: Deaf students and occupational teachers reported no unusual attendance problem either in absences or in making up missed work.

RELATIONS WITH HEARING PEERS: Except for the obvious inability of deaf students to hear sound, deaf students and hearing students reported that social and occupational interactions were positive and normal.

SAFETY: The safety record of deaf students is equal to or better than that of hearing peers.

STUDENT AND STAFF OVERALL REACTIONS TO OCCUPATIONAL PROGRAM: Deaf students expressed satisfaction with the occupational program. Several deaf students reported that the occupational programs gave them more interest in related academic subjects back at the school for the deaf. This opinion was confirmed by representatives of the school for the deaf. Several deaf students reported their opinion that the occupational training received at Oneida 1 BOCES could enable them to get an interesting and well paid job after graduation.

RECOMMENDATIONS: The program coordinator, the BOCES guidance counselor, occupational teachers, and deaf students recommended that an interpreting instructional aide be added to the program. This person could provide the following services on a regularly scheduled basis: interpretation, technical assistance, remedial help, career exploration, and employability counseling. Deaf students reported that such a person should be able to communicate in sign language and finger spelling. Some deaf students also suggested that this instructional aide could help individual teachers acquire signs for frequently repeated technical terms often used in school, on-the-job, and in the trade.

OVERVIEW OF RECORDS REVIEWED

After the observations and interviews summarized above, the school report card, attendance, discipline, scheduling, employment, and follow-up records were reviewed.

The results of this review indicated that the comments recorded in interviews agree with the official school records.

RECOMMENDATIONS FOR TRANSPORTABILITY TO SIMILAR PROGRAMS

Of special note at Oneida 1 BOCES was the following document:

GUIDELINES FOR PREPARING INSTRUCTIONAL MATERIALS

In the opinion of the evaluator, this document provided a good example of how to organize well planned lessons and smoothly administered shops. At the present time, this document is in the format of an outline designed to structure teacher orientation before school. Given a modest budget, it is expected that the program administrator could develop these ideas into a manual that could help teachers of the deaf develop well prepared, highly structured, and non-verbal lesson plans especially designed to help deaf students acquire occupational skills.

EVALUATION SUMMARY

ONEIDA 1 BOCES

The following items should be considered in reviewing the program for the deaf at Oneida 1 BOCES:

- ENROLLMENT:** 22 deaf students are currently being served.
- EXPERIENCE:** Since 1972, approximately 70 deaf students have been served.
- PLACEMENT:** The most recent survey was conducted on the class of 1973. Approximately 65% of deaf graduates were in course related employment. This compares favorably with 51%, the comparable percentage for hearing graduates.
- FOLLOW-UP:** Since students at New York State School for the Deaf come from a wide geographic area, follow-up statistics are handled by local offices of the Office of Vocational Rehabilitation.
- SERVICE:** Approximately 8% of the sophomores, 65% of the juniors, and 54% of the seniors of the New York State School for the Deaf attend the occupational programs at Oneida 1 BOCES.
- PROGRAM AREAS:** Deaf students have been trained in the following occupational areas since 1972:

Agriculture Mechanics	Home & Community
Auto Body	Services
Auto Mechanics	Masonry
Building Construction	Maintenance Mechanics
Building Remodeling	Office Machines
Clothing Occupations	Offset Lithography
Commercial Art	Ornamental
Cosmetology	Horticulture
Data Processing	Small Engines
Electricity	Welding

EXEMPLARY TRANSPORTABLE COMPONENTS:

The following components of the program for the deaf at Oneida 1 BOCES are suitable for applications elsewhere:

**GUIDELINES FOR PREPARING INSTRUCTIONAL
MATERIALS**

**MANUAL OF ADMINISTRATIVE PROCEDURES FOR
ESTABLISHING RAPPORT WITH A RESIDENTIAL
SCHOOL FOR THE DEAF**

SUPPORT SERVICES: The following support services are available to deaf students:

Coordinator
Tutoring
Counseling for occupational choice
Personal counseling via sign language
Integration into a hearing environment

ON-THE-JOB FOLLOW-UP: Graduates are helped in placement and follow-up through the Office of Vocational Rehabilitation.

HANDICAPPING CONDITIONS: Of the 22 deaf students served, the vast majority are totally deaf in both ears.

Of the 22 deaf students served, there are some who have multiple handicaps. Forecasts of students entering the program in the next few years indicate a rapidly rising percentage of deaf students with multiple handicaps.

The median reading level of these deaf students is 3rd grade as reported by the school for the deaf before entry into the occupational programs.

TOTAL COST: \$46,239 approved GRAND TOTAL

COST PER STUDENT	\$2,102 based upon 22 students in attendance
	\$1,846 based upon 25 students budgeted

INSTRUCTION PROFESSIONAL

SALARIES: \$12,152 salary
500 travel
3,212 benefits
\$15,864

INSTRUCTION CONTRACT

SERVICES: \$24,375 for 25 students

COST PER STUDENT	\$975
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PUPIL TRANSPORTATION CONTRACT

SERVICES: \$6,000 for 25 students

COST PER STUDENT	\$300
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SECTION VI

SOUTHERN WESTCHESTER BOCES

The evaluator visited the 4(B) program for the deaf at Southern Westchester BOCES on April 1 and 2, 1976.

OVERVIEW OF THE OBSERVATIONS

DATA

Each of the programs listed below was observed.

COURSE TITLE	NUMBER OF DEAF STUDENTS OBSERVED IN PROGRAM
Auto Mechanics	4
Auto Body	3
Data Processing	1
Electricity	1
Conservation-Recreation	1
TOTAL	<u>10</u>

EVIDENCE OF LEARNINGS AND PLACEMENTS

Deaf students were observed actively participating alongside hearing peers both in classrooms and in shops. Two different occupational sites were visited. Occupational teachers reported that deaf students were acquiring job skills comparable to those of hearing peers.

OBSERVABLE NEEDS OF STUDENTS: TRAINING AND JOB PLACEMENT

An instructional aide was observed interpreting for deaf students during presentations of occupational theory, directions, and explanations. After being exposed to this interpretation, deaf students seemed able to work independently during the completion of hands-on assignments.

The program coordinator reported having been an employability evaluator and counselor for the deaf during the preceding three years before coming to BOCES. He gave specific examples of how this related experience was put to use in providing career guidance. Two high priority criteria he discussed for deaf students were the acquisition of marketable job skills and of communication skills with hearing co-workers and supervisors on the job.

During the lunch period at the school for the deaf, the coordinator was observed while conducting a career exploration for 9th and 10th grade deaf students who were being prepared for career choices that could lead to entry into the Southern Westchester BOCES occupational program. Students were observed asking questions and receiving vocational information in sign language. The coordinator reported that most of the questions asked during the session observed had been generated by a recent visit of deaf students to the occupational center.

From these observations, the following needs of deaf students emerge:

1. Interpreters during the presentation of occupational theory, directions, and explanations;
2. Opportunities to acquire hands-on job skills in the classroom and shop alongside hearing peers and under the supervision of hearing teachers;
3. Accurate estimates of employability potential followed up with appropriate occupational instruction;
4. Career exploration counseling before making the decision to enter an occupational program.

The program in Southern Westchester BOCES appeared to be making and implementing plans for the remainder of this year and next year to respond to these observable needs of deaf students, some of which had not been met during the first five months of operation.

OBSERVABLE NEEDS OF THE PROGRAM: PHYSICAL FACILITIES AND STAFF

Southern Westchester BOCES has facilities that seem designed to provide accommodations necessary for the occupational success and safety of deaf students. For example, the classrooms and shops visited appeared large enough for both teacher surveillance and for unobstructed vision in the event of any safety hazard. The daily schedule of occupational theory and hand-on practice seemed designed to meet the employability needs of individual students, both deaf and hearing.

The coordinator reported that occupational teachers took part in voluntary in-service programs conducted once a week during the lunch period. Teachers interviewed expressed a willingness to provide the assistance needed by deaf students such as extra time and the use of demonstrations more than verbal explanations.

At the school for the deaf, academic teachers were observed providing remedial help centered around vocabulary, reading, math, and other assignments made by BOCES occupational teachers.

From these observations, the following program needs of deaf students emerge:

1. Physical facilities that provide sufficient unobstructed fields of vision both for teachers and students;
2. Exposure to occupational theory that correlates with hands-on job skills;
3. Teachers ready and willing to provide the extra time and effort needed for effective communication;

4. Access to readily available remedial instruction when necessary.

The program at Southern Westchester BOCES appeared to be responding to these observable needs of deaf students.

OVERVIEW OF INTERVIEWS

OCCUPATIONAL PROGRAMS: Deaf students, occupational teachers, and representatives from the school for the deaf reported that deaf students have access to all occupational programs offered at Southern Westchester BOCES. Deaf students are currently enrolled in 4 programs. Since 1975, deaf students have received training in 5 program areas.

COURSE SELECTION: The program coordinator reported initiation of procedures designed to make sure that each deaf student has access to personal counseling, ability testing, group guidance, and career information before making the choice to attend occupational programs at BOCES. All deaf students interviewed reported that their choice of an occupational course had been respected. However, in three cases out of ten, deaf students reported regretting their original choice of courses.

STUDENT GRADES: Teachers reported that, based upon the same marking standards, the grades received by deaf students in general were comparable to those of hearing peers. The failing grades of three deaf students were attributed by occupational teachers to lack of interest on the part of the deaf students concerned rather than to deafness. Representatives from the school for the deaf confirmed this explanation. The program coordinator reported that plans for improved program and career exploration in 1976-77 were being made.

STUDENT PLANS FOR NEXT YEAR: Of the 4 juniors, 1 has successfully completed the occupational program and plans to return to the school for the deaf to take academic subjects; 2 plan to return to BOCES; and 1 plans to begin supervised work-experience. Of the 6 seniors, 2 plan to begin post-secondary occupational training or college, 2 plan to seek help from the Office of Vocational Rehabilitation, and 2 plan to seek employment.

PROBLEMS: Deaf students and occupational teachers reported that a full-time coordinator has been available only since February 1976. This was reported as the cause of other problems. For example, communications were difficult between occupational teachers and deaf students without the help of a readily available interpreter. Representatives from the school for the deaf reported that three of the deaf students had not received adequate counseling about the BOCES program prior to entry.

SOLUTIONS: The program coordinator reported the following. Since February, a full-time coordinator has been on the job. Procedures have been established to insure occupational counseling before the choice to attend BOCES. A part-time interpreting instructional aide has been hired and assigned on a scheduled basis to interpret for deaf students during occupational theory classes.

SUPPORT SERVICES: Deaf students reported receiving the following support services since the month of February 1976: counseling, tutoring, interpretation, career exploration, and job information. Representatives from the school for the deaf reported that deaf 9th and 10th graders were being counseled well in advance of the decision to enter occupational programs at BOCES.

ATTENDANCE: Deaf students and occupational teachers reported no unusual problems in attendance either in absences or in making up missed work.

RELATIONS WITH HEARING PEERS: Deaf students, hearing peers, and occupational teachers reported that occupational interaction was positive and normal.

SAFETY: The safety record of deaf students is equal to or better than that of hearing peers.

STUDENT OVERALL REACTIONS TO OCCUPATIONAL PROGRAM: Deaf students and representatives from the school for the deaf reported satisfaction with the occupational program. Several deaf students reported their opinion that they had achieved success in acquiring marketable job skills.

RECOMMENDATIONS: The program coordinator suggested that funds be made available to enable coordinators of similar programs to meet and discuss common problems and solutions. It was felt that such an exchange of experience could benefit deaf students.

OVERVIEW OF RECORDS REVIEWED

After the observations and interviews summarized above, the school report card, attendance, discipline, and scheduling records were reviewed.

The results of this review indicated that the comments recorded in interviews agree with the official school records.

RECOMMENDATIONS FOR TRANSPORTABILITY TO SIMILAR PROGRAMS

Of special note at Southern Westchester BOCES are the following:

MANUAL OF GUIDELINES FOR FACULTY AND STAFF ORIENTATION
ON DEAFNESS (voluntary lunch hour program)

LESSON PLANS FOR STUDENT ORIENTATION TO THE OCCUPATIONAL
PROGRAM (for 9th, 10th, and 11th grade deaf students)

EMERGENCY PROCEDURES MANUAL FOR COORDINATORS TAKING OVER
THE PROGRAM FOR THE DEAF IN MID-YEAR

In the opinion of the evaluator, these approaches to occupational programs for deaf students are suitable for application elsewhere. With a modest budget, the program coordinator at Southern Westchester BOCES could develop a transportability manual that could enable program coordinators to benefit from these techniques that appeared effective.

EVALUATION SUMMARY

WESTCHESTER BOCES

The following items should be considered in reviewing the program for the deaf at Southern Westchester BOCES:

ENROLLMENT: 9 deaf students are currently being served.

EXPERIENCE: Since September 1975, 10 deaf students have been served.

PLACEMENT FOLLOW-UP: This new program has not as yet generated placement statistics and other follow-up data.

SERVICE: Approximately 30% of the juniors and 40% of the seniors from New York School for the Deaf attend the occupational program at Southern Westchester BOCES.

PROGRAM AREAS: Deaf students are currently being trained in the following occupational areas:

- Auto Body
- Auto Mechanics
- Conservation-Recreation
- Data Processing
- Electricity

TRANSPORTABLE COMPONENTS:

The following components of the program for the deaf at Southern Westchester BOCES are ready for application elsewhere:

MANUAL OF GUIDELINES FOR FACULTY AND STAFF
ORIENTATION ON DEAFNESS (voluntary lunch
hour program)

LESSON PLANS FOR STUDENT ORIENTATION TO THE
OCCUPATIONAL PROGRAM (for 9th, 10th, and
11th grade)

EMERGENCY PROCEDURES MANUAL FOR COORDINATORS
WHO ASSUME LEADERSHIP OF A PROGRAM IN MID-YEAR

SUPPORT
SERVICES:

The following support services are available to deaf students:

Interpreter
Remedial help in the home school
Pre-occupational choice counseling
Opportunity for visits and hands-on
experience before selection of an
occupational course
Teachers oriented to the psychology
of deafness

ON-THE-JOB
FOLLOW-UP:

The current program has not been long enough in operation to graduate deaf students. However, the present coordinator reported several years experience in evaluating occupational employability and on-the-job progress of deaf workers and plans to use these skills when appropriate.

HANDICAPPING
CONDITIONS:

Of the 9 deaf students served, 8 are totally deaf and 1 is hard of hearing.

Of the 9 deaf students served, none have multiple handicaps.

The median reading level of these deaf is 4th grade as reported by the school for the deaf before entry into the occupational programs.

TOTAL COST: \$40,830 approved GRAND TOTAL

COST PER STUDENT

\$4,537 based upon 9 students in
attendance
\$4,083 based upon 10 students
budgeted

INSTRUCTION
PROFESSIONAL
SALARIES:

\$17,000 salary
75 travel
3,315 benefits
\$20,890

INSTRUCTION
CONTRACT

SERVICES: \$15,000 for 10 students in budget

COST PER STUDENT

\$1,500

PUPIL
TRANSPORTATION
CONTRACT

SERVICES: \$0.00 for 10 students

SECTION VII

GENESEE-WYOMING BOCES

The evaluator visited the 4(B) program for the blind and partially sighted at the Genesee-Wyoming BOCES on April 7, 1976.

OVERVIEW OF THE OBSERVATIONS

DATA

Each of the programs listed below was observed.

<u>COURSE TITLE</u>	<u>NUMBER OF BLIND STUDENTS OBSERVED IN PROGRAM</u>
Food Services	3
Human Services	1
Office Occupations	1
Exploratory Building Trades	1
Service Station	1
TOTAL	7

EVIDENCE OF LEARNINGS AND PLACEMENTS

Blind and partially sighted students were observed participating in both classroom theory and hands-on applications alongside fully sighted peers. Job related standards were evident. For example, machinery, equipment, procedures, techniques, and processes were explicitly linked by the teachers observed to on the job conditions. Several teachers reported that the maintenance of occupational employability standards required giving more time and attention to blind and partially sighted students.

OBSERVABLE NEEDS OF STUDENTS: TRAINING AND JOB PLACEMENT

Blind and partially sighted students appeared to be hesitant when told that observers were present. Occupational teachers reported that acquisition of self-confidence seemed to be the number one need of partially sighted students.

Partially sighted students were observed performing hands-on operations in kitchens, in office practice labs, and in wood shops. The products developed by a totally blind student were examined in a nursery designed to train child care attendants.

Teachers reported that success on the part of blind and partially sighted students came slowly but steadily once a certain amount of self-confidence had been achieved both in school and on the job.

From these observations, the following needs of blind and partially sighted students emerge:

1. Enough self-confidence to undertake the acquisition of occupational skills;
2. Opportunities to work alongside fully sighted peers in an occupational center;
3. Extra time and attention from occupational teachers during the difficult period of transition to the occupational center.

The program at Genesee-Wyoming BOCES appeared to be responding to these observable needs of blind and partially sighted students to a high degree.

OBSERVABLE NEEDS OF THE PROGRAM: PHYSICAL FACILITIES AND STAFF

Genesee-Wyoming BOCES has provided special equipment needed to accommodate the needs of blind and partially sighted students. The following items were observed: braille exams and texts, reading materials printed in large type, auditory equipment, magnifying glasses for the partially sighted, and scents used to identify the color of magic markers.

The following staff services required by blind and partially sighted students were observed: counseling, remediation, work placement, supervised work experience, integration into the sighted world, and career exploration.

In addition, plans for the new BOCES plant include special provisions to compensate for a variety of handicapping conditions. Occupational teachers from the BOCES were observed in collaboration with academic teachers from school for the blind. Representatives from the school for the blind reported that occupational teachers accepted the fact that blind students required more time than sighted students to acquire job skills.

From these observations, the following program needs of blind and partially sighted students emerge:

1. Special learning equipment;
2. Special support services;
3. Special compensatory facilities.

The program at Genesee-Wyoming BOCES appeared to be responding to these observable needs of blind and partially sighted students to a high degree.

OVERVIEW OF INTERVIEWS

OCCUPATIONAL PROGRAMS: Blind and partially sighted students, occupational teachers, and representatives from the school for the blind reported that blind and partially sighted students have access to all occupational programs offered at Genesee-Wyoming BOCES. Blind and partially sighted students are currently enrolled in 5 programs. Since 1974, blind and partially sighted students have received training in 7 program areas.

COURSE SELECTION: Blind and partially sighted students reported that course selection had been based upon the following factors: personal interests, free choice, professional counseling, career exploration, and hands-on experience with various occupational tools.

STUDENT GRADES: Occupational teachers reported that, based upon the same marking standards, the grades received by blind and partially sighted students were comparable to those of sighted peers.

STUDENT PLANS FOR NEXT YEAR: Of the 7 blind and partially sighted students in the occupational program, 4 plan to return next year to BOCES, 2 plan to begin supervised work experience, and 1 plans to seek a job.

PROBLEMS: Blind and partially sighted students, occupational teachers, and representatives from the school for the blind reported that extra time was required to acquire job skills. In addition, occupational teachers reported that, during this extra time, the appearance of some students had deteriorated in the absence of paid work experience.

SOLUTIONS: Occupational teachers and representatives from the school for the blind reported that extra time had been made available as needed. Both groups expressed agreement with the idea that blind and partially sighted students needed a chance to earn money on their own. The coordinator described supervised work experience job sites used to respond to this need.

SUPPORT SERVICES: Blind and partially sighted students reported having received the following support services: special equipment, counseling, remedial help, supervised work experience, integration into the sighted world, career exploration, and extra time in class. Representatives from the school for the blind expressed satisfaction with the services provided.

ATTENDANCE: Teachers reported that blind and partially sighted students presented no unusual problems in attendance either in absences or in making up missed work.

RELATIONS WITH SIGHTED PEERS: Fully sighted students, partially sighted students, and blind students reported that social and occupational interactions were positive and normal.

SAFETY: The safety record of blind and partially sighted students was comparable to that of fully sighted peers. Occupational teachers reported that blind students were kept away from equipment and processes that could present safety hazards.

STUDENT AND STAFF OVERALL REACTIONS TO THE OCCUPATIONAL PROGRAM: Blind and partially sighted students expressed satisfaction with the occupational program and in the opportunity offered to gain valuable job skills. Representatives from the school for the blind reported satisfaction in the job done by the Genesee-Wyoming BOCES in helping blind and partially sighted students achieve greater independence, more job skills, and more self-confidence.

RECOMMENDATIONS: Representatives from the school for the blind suggested that the program be continued. Occupational teachers recommended that work experience be worked into the schedule of each blind or partially sighted student.

OVERVIEW OF RECORDS REVIEWED

After the observations and interviews summarized above, the school report card, attendance, discipline, scheduling, employment, and follow-up records were reviewed.

The results of this review indicated that the comments recorded in interviews agree with the official school records.

RECOMMENDATIONS FOR TRANSPORTABILITY TO SIMILAR PROGRAMS

Of special note at Genesee-Wyoming BOCES were the following program components:

GUIDELINES FOR COORDINATION WITH THE SCHOOL FOR THE BLIND

PLANNING MANUAL FOR TEACHER-TO-TEACHER COOPERATION BETWEEN
OCCUPATIONAL TEACHERS AND TEACHERS AT THE SCHOOL FOR THE BLIND

MANUAL OF ADMINISTRATIVE PROCEDURES FOR SETTING UP A PROGRAM FOR
THE BLIND

In the opinion of the evaluator, these approaches to occupational education for blind and partially sighted students are suitable for application elsewhere. With a modest budget, the program coordinator could develop a short transportability manual that could enable coordinators of similar programs to benefit from these techniques that appeared effective.

EVALUATION SUMMARYGENESEE-WYOMING BOCES

The following items should be considered in reviewing the program for the blind at Genesee-Wyoming BOCES:

ENROLLMENT: 7 blind students are currently being served.

EXPERIENCE: Since 1974, 14 blind students have been served.

PLACEMENT: Out of the 14 blind students served, none are currently unemployed.

FOLLOW-UP: The following figures summarize the current status of these 14 students and graduates:

Non-course related employment	1
College	1
State School for the Blind	5
Presently in occupational program	<u>7</u>
	14

SERVICE: Approximately 30% of the sophomores, juniors, and seniors of the New York School for the Blind attend the occupational program at Genesee-Wyoming BOCES.

PROGRAM AREAS: Blind students have been trained in the following occupations: areas since 1974:

Auto Services	Food Services
Data Processing	Human Services
Electronics	Office Machines
Exploratory Building	
Trades	

EXEMPLARY
TRANSPORTABLE
COMPONENTS:

The following components of the program for the blind at Genesee-Wyoming BOCES are suitable for application elsewhere:

GUIDELINES FOR COORDINATION WITH THE SCHOOL
FOR THE BLIND

PLANNING MANUAL FOR TEACHER-TO-TEACHER COOPERATION
BETWEEN OCCUPATIONAL TEACHERS AND TEACHERS AT THE
SCHOOL FOR THE BLIND

MANUAL OF ADMINISTRATIVE PROCEDURES FOR SETTING
UP A PROGRAM FOR THE BLIND

SUPPORT
SERVICES:

The following support services are available
to blind students:

Counseling
Braille exams and texts
Large type exams and tests
Auditory equipment
Scents used to identify color of
magic markers
Magnifying glasses
Work placement for utilization of
job skills learned in school
Integration into the sighted world

ON-THE-JOB
FOLLOW-UP:

A placement coordinator provides follow-up
services to blind students placed in jobs and
work experience locations.

HANDICAPPING
CONDITIONS:

Of the 7 blind students served, 2 have multiple
handicaps.

Of the 7 blind students served, 6 are partially
sighted.

Because of these handicaps, it is not unusual
for blind students to require more time than
sighted students to master job skills.

TOTAL COST: \$21,599 approved GRAND TOTAL

COST PER STUDENT

\$3,381 based upon 7 students in
attendance
\$1,573 based upon 15 students
budgeted

INSTRUCTION
PROFESSIONAL
SALARIES:

\$13,000 salary
3,815 benefits
\$16,815

INSTRUCTION
CONTRACT
SERVICES:

\$7,500 for 15 students

COST PER STUDENT

\$500

PUPIL
TRANSPORTATION
CONTRACT
SERVICES:

\$3,000 for 15 students

COST PER STUDENT

\$200

PROPOSED CONSIDERATIONS IN PROGRAM REVIEWS

The following major considerations are proposed when the 4(B) programs described in Sections II through VII are reviewed for refunding:

1. Deaf students could benefit at reasonable cost from the services of an instructional aide skilled in sign language provided the salary requested for this person is that of an aide working directly under the full-time program coordinator;
2. Blind students could benefit from training time beyond the usual program length;
3. Small grants ranging between \$3,000 and \$5,000 could multiply the effectiveness of 4(B) programs for the deaf or blind which submit appropriate plans for the development of transportability manuals.

The following consideration is proposed for new 4(B) programs requesting funding:

4. New 4(B) programs for the deaf or blind can benefit from establishing procedures to insure that all prospective candidates are counseled and screened before the beginning of the occupational school year.

The bases for these proposed considerations can be found in the program by program evaluations contained in Sections II through VII. Special attention is called to the two page EVALUATION SUMMARY following each section.

Further details on each of the above considerations appear below:

1. Having the services of an interpreter could enable deaf students to derive more benefits from occupational courses. During on-site visitations, deaf students were observed participating in classroom activities both with and without interpreters. In situations where interpreters were available, deaf students appeared to ask more questions, exhibit longer attention spans, need less teacher repetition, and perform better during hands-on applications.
2. Having the opportunity for extra training time made available as required time made available as required by individual needs could enable blind students to move through occupational programs by competency levels. In the programs visited, blind students seemed to require more training time than deaf students who in turn required more training time than sighted and hearing students. This impression was confirmed during interviews with blind and deaf students and their occupational teachers.
3. Having a modest research and transportability budget could enable program coordinators to share successful practices with one another. Programs visited were observed responding to the following needs of deaf and blind students:

BEFORE AN OCCUPATIONAL PROGRAM, deaf and blind students need:

- remedial reading
- communications with hearing and sighted peers
- experience with basic hand tools
- career exploration based upon information and experience

DURING AN OCCUPATIONAL PROGRAM, deaf and blind students need:

- interpreters
- extra training time
- remedial instruction
- demonstration rather than explanations
- safety accommodations
- captioned visual aids (for deaf)
- braille instruction (for blind)
- signs for key technical terms (for deaf)
- special learning equipment
- support services
- role models

AFTER AN OCCUPATIONAL PROGRAM, deaf and blind students need:

- job theory mastery
- manual skills
- work habits
- working relationships with hearing and sighted peers
- self-confidence
- independence
- employability profiles
- job counseling
- job placement
- follow-up services

During on-site visitations, some programs seemed to be doing an exceptional job in meeting one or more of the above needs.

Local responses identified in Sections II through VII as suitable for transportability elsewhere seem to have potential statewide and nationwide applicability. The development of transportability manuals is one way to package successful local practices for use elsewhere.

4. Having definite course selection and screening procedures could enable new programs to get off to a good start and to avoid certain foreseeable problems, such as random selection of occupational courses by deaf and blind students and sending school perception of the program functioning as a custodial rather than as an occupational service.

APPENDICES

SCHEDULES USED TO SYSTEMATIZE AND RECORD INFORMATION RECEIVED DURING
INTERVIEWS WITH STUDENTS, COORDINATORS, OCCUPATIONAL TEACHERS, AND
REPRESENTATIVES FROM THE SCHOOLS FOR THE DEAF AND BLIND

DEAF STUDENTS

- 1a. What occupational course are you now taking?
- 1b. How long have you been in this course? (Since September 75, 174??)
2. What do you like about this course?
- 3a. What report card grade did you get on the last report card?
- 3b. How well did you do on the last exam?
- 3c. How well you do on work done in school?
- 3d. How well do you do on homework done away from school?
- 4a. How much better could you be doing in this course?
- 4b. What would you have to do to do better?
- 4c. What keeps you from doing better?
- 5a. What will you be doing next year? (WORK? COLLEGE? BOCES? SAME SCHOOL? SAME SCHOOL? SAME COURSE? ST. PAUL? ROCHESTER? etc)
- 5b. Why?
- 5c. What is your biggest obstacle to getting a job related to the occupational course you are now taking?
- 6a. What problems do you have most often in the occupational course classroom? (At least 2)
- 6b. Which of these problems keep you from learning?
- 7a. How do you solve these problems?
- 7b. Who also helps you solve these problems?
- 8a. How well does your occupational teacher use sign language?
- 8b. How well does your occupational teacher use the manual alphabet?
- 8c. What does your occupational teacher do to help you read printed material better?
- 8d. How often do you get reading homework you can't read easily?
- 8e. What does your occupational teacher do to explain new words before you have to read these new words?
- 9a. How many days have you been absent since September 1975?
- 9b. What are the reasons for these absences?
- 10a. How well do you read the lips of hearing students?
- 10b. How well do hearing students use sign language?
- 10c. How well do hearing students use the manual alphabet?
- 10d. How many hearing students try to use sign language or manual alphabet?
11. What does the counselor/coordinator do most often to help you?
- 12a. What safety problems have you been warned about?
- 12b. Have you had any accidents in the occupational classes?
- 13a. What do you like the most about the occupational courses?
- 13b. What do you like the least about the occupational courses?
- 13c. What does the school for the deaf do to help you READ homework assignments and READ practice exams?
- 13d. What recommendations do you have about your occupational courses?

NOTE: At programs for the blind, substitute "blind" for "deaf."

1. In what vocational-occupational training areas presently up for deaf students are deaf students succeeding?
 - in classroom?
 - in employment?
- 2a. In which areas do deaf students show the greatest amount of interest?
- 2b. What instruments, techniques, methods, and hands-on experiences do you use to determine the vocational interests of deaf students?
- 3a. What instruments, techniques, or criteria do you use to measure potential capacity for expressed career interest?
- 3b. What grades are deaf students receiving?
4. What career choices are available to deaf students at this school that permit development of full potential?
- 5a. Are jobs available in these areas for deaf students?
- 5b. Is there a job developer to help employers develop these jobs?
- 5c. What problems have you encountered in placing deaf students in jobs for which they were trained?
- 5d. What kind of job placement records do you have?
6. What problems regarding teachers have been brought to the attention of the counselor by deaf students?
7. How has the counselor helped to alleviate or solve these problems?
- 8a. What recommendations do you have which would avoid problems between teachers and deaf students in the future?
- 8b. Who does the preservice and inservice training?
- 8c. Is inservice training optional or mandatory for the teacher of the deaf students?
- 8d. Who provides it?
9. Has absenteeism presented any special problems with deaf students?
10. Do deaf students have any special problems relating with hearing students?
- 11a. What is the liaison role between occupational center and the school for the deaf?
- 11b. What special training qualifications does the coordinator have?
- 11c. What special training in deaf education does the coordinator have?
12. What unusual safety problems have you encountered by having deaf students in the program?
13. What overall recommendations would you have for improving the occupational program for deaf students?

NOTE: At programs for the blind, substitute "blind" for "deaf."

SCHOOL FOR THE DEAF (BLIND)

1. Which vocational-occupational training areas are most appropriate in terms of:
 - a. student interest and capacity
 - b. available technology
 - c. cost-effectiveness
 - d. available occupations
2. How do you determine the interests of students?
3. How do you determine the student's capacity?
4. How far can the handicapped go in mastering occupations?
5. What effect has the vocational-occupational training on employment?
6. What are some of the typical types of problems that deaf students have faced in vocational-occupational training programs?
- 7a. Which problems were resolved satisfactorily? and how?
- 7b. Which problems were not resolved satisfactorily? and why?
- 8a. What sort of special preservice training does the vocational-occupational training teacher get prior to working with the deaf students?
- 8b. What sort of inservice training does the vocational-occupational training teacher get prior to working with the deaf students?
- 8c. How appropriate and effective is this training?
- 9a. Is absenteeism a problem?
- 9b. How do students make up work missed when absent?
10. Do deaf students have difficulty getting along with fellow students who are not deaf?
11. Is adequate counseling available at the occupational center?
12. What safety problems do deaf students report?
13. What are your general recommendations?

NOTE: At programs for the blind, substitute "blind" for "deaf."

OCCUPATIONAL TEACHER OF THE DEAF

1. Which occupational areas are appropriate for deaf students?
2. Which occupational areas interest deaf students most?
3. In which areas are deaf students most capable?
- 4a. How satisfactory is your deaf student's performance?
- 4b. How does the deaf student's performance compare with the other students?
- 5a. What jobs in this occupation are available to deaf students in general?
- 5b. For which of these job possibilities do your deaf students qualify?
- 5c. How employable are your deaf students in general from the point of view of willingness for learning skill development, attitude, appearance, work habits, and communication with immediate superior?
- 5d. What do you recommend for your present deaf student(s) next year.
6. What is your most serious problem in working with the deaf?
7. What would you recommend in helping to eliminate this problem?
- 8a. What sort of special training did you have prior to receiving your deaf student(s)?
- 8b. What sort of inservice training for working with deaf students have you had since receiving your deaf student(s)?
- 9a. Have your deaf students had a higher rate of absenteeism than the regular students?
- 9b. How do they make up work?
- 10a. How do deaf students get along with hearing students?
- 10b. How well will your deaf students get along with potential employees?
11. How helpful has the counselor (coordinator) been in helping to overcome the problems you have encountered with your deaf student(s)?
- 12a. In the classroom, what special safety problems have arisen?
- 12b. On the job, what special problems do you anticipate regarding the safety of deaf students?
- 12c. What changes would you recommend concerning safety hazards?
- 13a. What are your general recommendations?
- 13b. What do you recommend for future deaf student(s) next year?

NOTE: At programs for the blind, substitute "blind" for "deaf."